$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

$P_1 \rightarrow$ initial pressure

$P_2 \rightarrow$ final pressure

$V_1 \rightarrow$ initial volume

$V_2 \rightarrow$ final volume

$T_1 \rightarrow$ initial temperature

$T_2 \rightarrow$ final temperature

#2) $P_1 = 0.98\ atm$

$V_1 = 1.0\ L$

$P_2 = ?$

$V_2 = 2.0\ L$

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$ Boyle's Law: Const. temp.

(1)

$$P_1 V_1 = P_2 V_2$$

$$P_2 = \frac{P_1 V_1}{V_2}$$

$$= \frac{(0.98\ atm)(1.0\ L)}{2.0\ L}$$

$$= 0.49\ atm$$

(2) (1)

Units as numbers:

$$\frac{(\cancel{atm})(L)}{(\cancel{atm})} = L$$

$$\frac{(\cancel{K})(\cancel{L})(atm)}{(\cancel{K})(\cancel{L})} = atm$$